

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1-20. (Canceled)

21. (Currently Amended) A personal computer comprising:

a semiconductor film provided over a substrate and comprising a source region, a drain region and a channel formation region provided between said source region and said drain region; and

a gate electrode provided adjacent to said channel formation region with a gate insulating film therebetween,

wherein lattices are continuously connected to each other at a grain boundary of said semiconductor film between different crystals, [[and]]

wherein atoms constituting the different crystals at the grain boundary correspond to each other respectively or have dangling bonds neutralized by hydrogen or halogen elements, and

wherein a halogen element is contained in said semiconductor film with a concentration of 1×10^{15} to 1×10^{20} atoms/cm³.

22. (Previously Presented) A computer according to claim 21 further comprising an auxiliary capacitance.

23. (Previously Presented) A computer according to claim 21 further comprising:

a pixel electrode;

an opposite electrode; and

a liquid crystal provided between said pixel electrode and said opposite electrode.

24. (Canceled)

25. (Previously Presented) A computer according to claim 21 wherein a channel length of said channel formation region is 2 μm or shorter.

26-41. (Canceled)

42. (Previously Presented) A computer according to claim 21 wherein a direction of movement of a carrier in said channel formation region coincides with a direction of extension of said grain boundary.

43. (Previously Presented) A computer according to claim 21 wherein the semiconductor film comprises silicon.

44. (Previously Presented) A computer according to claim 21 wherein the semiconductor film comprises a rod-shaped crystal.

45. (Previously Presented) A computer according to claim 21 wherein the semiconductor film comprises a flattened rod-shaped crystal.

46. (Previously Presented) A computer according to claim 23 wherein the pixel electrode comprises ITO.

47. (Currently Amended) A personal computer comprising:
a semiconductor film provided over a substrate and comprising a source region, a drain region and a channel formation region provided between said source region and said drain region; and
a gate electrode provided adjacent to said channel formation region with a gate insulating film therebetween, and
a thermal oxidation film provided between the semiconductor film and the gate electrode,

wherein lattices are continuously connected to each other at a grain boundary of said semiconductor film between different crystals, [[and]]

wherein atoms constituting the different crystals at the grain boundary correspond to each other respectively or have dangling bonds neutralized by hydrogen or halogen elements,
and

wherein a halogen element is contained in said semiconductor film with a concentration of 1×10^{15} to 1×10^{20} atoms/cm³.

48. (Previously Presented) A computer according to claim 47 further comprising an auxiliary capacitance.

49. (Previously Presented) A computer according to claim 47 further comprising:
a pixel electrode;
an opposite electrode; and
a liquid crystal provided between said pixel electrode and said opposite electrode.

50. (Previously Presented) A computer according to claim 47 wherein a channel length of said channel formation region is 2 μm or shorter.

51. (Previously Presented) A computer according to claim 47 wherein a direction of movement of a carrier in said channel formation region coincides with a direction of extension of said grain boundary.

52. (Previously Presented) A computer according to claim 47 wherein the semiconductor film comprises silicon.

53. (Previously Presented) A computer according to claim 47 wherein the semiconductor film comprises a rod-shaped crystal.

54. (Previously Presented) A computer according to claim 47 wherein the semiconductor film comprises a flattened rod-shaped crystal.

55. (Previously Presented) A computer according to claim 49 wherein the pixel electrode comprises ITO.

56. (Currently Amended) A personal computer comprising:
a semiconductor film provided over a substrate and comprising a source region, a drain region, a channel formation region provided between said source region and said drain region, and a low concentration impurity region provided between the channel formation region and at least one of the source region and the drain region; and
a gate electrode provided adjacent to said channel formation region with a gate insulating film therebetween,
wherein lattices are continuously connected to each other at a grain boundary of said semiconductor film between different crystals, [[and]]
wherein atoms constituting the different crystals at the grain boundary correspond to each other respectively or have dangling bonds neutralized by hydrogen or halogen elements, and
wherein a halogen element is contained in said semiconductor film with a concentration of 1×10^{15} to 1×10^{20} atoms/cm³.

57. (Previously Presented) A computer according to claim 56 further comprising an auxiliary capacitance.

58. (Previously Presented) A computer according to claim 56 further comprising:
a pixel electrode;
an opposite electrode; and
a liquid crystal provided between said pixel electrode and said opposite electrode.

59. (Previously Presented) A computer according to claim 56 wherein a channel length of said channel formation region is 2 μm or shorter.

60. (Previously Presented) A computer according to claim 56 wherein a direction of movement of a carrier in said channel formation region coincides with a direction of extension of said grain boundary.

61. (Previously Presented) A computer according to claim 56 wherein the semiconductor film comprises silicon.

62. (Previously Presented) A computer according to claim 56 wherein the semiconductor film comprises a rod-shaped crystal.

63. (Previously Presented) A computer according to claim 56 wherein the semiconductor film comprises a flattened rod-shaped crystal.

64. (Previously Presented) A computer according to claim 58 wherein the pixel electrode comprises ITO.

65-67. (Canceled)

68. (Previously Presented) A personal computer according to claim 21 wherein said substrate comprises a silicon wafer.

69. (Previously Presented) A personal computer according to claim 47 wherein said substrate comprises a silicon wafer.

70. (Previously Presented) A personal computer according to claim 56 wherein said substrate comprises a silicon wafer.